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Forest
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Subject: Douglas-fir Tussock Moth 2001 Monitoring Activities

To: District Ranger, Sacramento Ranger District, Lincoln National Forest

This letter documents our follow-up efforts to date in monitoring the second year of Douglas-fir tussock moth activity on the Sacramento RD. We started the season with an early instar larval survey conducted by Rick Norris, biological technician, and I on June 11-12, 2001. Next, Deb Allen-Reid, Zone Leader, and I made a field visit on July 17, 2001, in response to District staff reports of pockets of visible defoliation. On August 6-7, Deb and I returned to place male moth traps. The results of our field visits are summarized below:

June 11-12: Douglas-fir Tussock Moth Early Instar Larval Survey.

On Monday, June 11, 2001, Rick and I conducted a Douglas-fir tussock moth larval survey of seven recreations sites and a site next to James Ridge Lookout located along Forest Service Road 177 on the Sacramento RD. The recreational sites surveyed included:

1. Pines Campground
2. Fir Group Campground
3. Saddle Campground
4. Silver Campground
5. Deerhead Campground
6. Aspen Group Campground
7. Sleepy Grass Campground

Douglas-fir tussock moth population densities were measured using the lower crown beating method to sample early instar larvae (newly hatched caterpillars). Early larval instars are easier to sample accurately than other tussock moth larvae because of their more regular distribution. Two 18-inch branches on each of 5 trees per plot were non-destructively sampled by beating them in place over a hand-held cloth basket. Dislodged larvae were counted and the foliage examined for feeding damage.

Our results at all the sites sampled were negative, indicating the Douglas-fir tussock moth population at the sites sampled were undetectable. There were also no signs of tussock moth feeding damage.



On Tuesday, June 12, Rick and I conducted an early larval survey at the Dale Resler Boy Scout Camp located east of Cloudcroft. We were accompanied by Dr. John Redd, a Centers for Disease Control Epidemic Intelligence Officer assigned to the New Mexico Department of Health in Santa Fe, and Eric Whitney, Correspondent, Public Radio International. Dr. Redd investigated the allergic reactions in boys exposed to the Douglas-fir tussock moth larvae at Dale Resler Boy Scout Camp last year and was interested in accompanying us during this survey. Eric was interested in doing a broadcast for Public Radio International about the tussock moth activity at the camp.

The results of this tussock moth early larval survey were negative. No early larval stages or feeding damage were detected at the camp. These results indicated Douglas-fir tussock moth populations were at very low levels and are not expected cause any significant problems (defoliation of host trees, allergic reactions to boy scouts, etc.) at the camp this year.

July 13: Field Visit to Tussock Moth-Defoliated Sites

On Wednesday, July 17, 2001, Debra Allen-Reid and I conducted a field examination of two sites of heavy feeding by Douglas-fir tussock moth larvae. These sites were detected by Mickey Mauter of your staff. One of the sites, visible from Highway 82, is on private land east of Cloudcroft, 1.5 miles east of the ski area, on the south side of the road between Rawlins Canyon and Painter Canyon. The other is on Forest Service land along Forest Service Road 6551 east toward Eight Mile Canyon. We appreciate the assistance of Mickey and Dennis Dwyer, Silviculturist on your District, both of whom accompanied us during this field visit.

Our field examinations confirmed that both sites were defoliated by the Douglas-fir tussock moth. Larval densities were high at both sites and defoliation was moderate to heavy, especially on the understory white fir saplings and poles. All of the larvae appeared to be in the 5th and possibly 6th instars (mature) and were expected to soon form cocoons in which the larvae will change to adults. We brought two of the caterpillars back with us to rear out; however, they were both killed by dipteran (fly) parasites. Conversations with the Dale Resler Boy Scout Camp's staff revealed that caterpillar incidence was much lower at the Camp this summer than last summer.

August 7-8: Male Moth Trap Placement

On August 6-7, 2001, Deb and I returned to place male moth traps designed to assist us in projecting next year's population levels. Traps were placed at the following 11 sites also trapped last year: Devil's Canyon, Observatory, Dale Resler Boy Scout Camp, James Ridge Lookout, Bear Spring (formerly called Bear Canyon), FS 5662 (replaces Aspen Group Camp), Karr Canyon, Rio Peñasco, FS 64 Mountain Lab, Tularosa Canyon, and Twelve miles NW of Elk-Silver. In addition, traps were placed for the first time at Sleepy Grass Picnic Area and Apache Campground.

The collection of fly parasites is an encouraging sign that natural control agents are at work in the population. The results of the trapping will be reported after the traps are retrieved in early fall. Our annual aerial detection survey of the Lincoln, being conducted by Rick Norris this week, should provide additional information about the degree of tussock moth activity across the landscape. An early report from Rick indicates a significant area of defoliation detected about a mile west of Bear Spring.

If you have any questions about the Douglas-fir tussock moth or this report, please call me at (505) 842-3287 or e-mail me at trogers@fs.fed.us.

/s/ Terrence J. Rogers
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